

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A refractory metal plate comprising:

a metal plate made of a base material and having at least one surface, said base material comprising at least one of molybdenum, tungsten, molybdenum alloys and tungsten alloys; and

an oxide coating layer formed by depositing oxide powder of at least one of oxide powders of alumina, silica, zirconia, yttria, titania, magnesia, and calcia onto said at least one surface ~~of a metal composed of one of molybdenum, tungsten, molybdenum alloys and tungsten alloys,~~

wherein said oxide coating layer covers the whole of said at least one surface, the exposure of a said base material being equal to or less than 1% of a unit area of the oxide coating layer, ~~said metal having a shape of plate and~~

~~wherein, in surface state of the coated metal plate as is~~ a base plate, and a surface roughness thereof is such that Ra is 20 μm or less and Rmax is 150 μm or less.

2. (original): The refractory metal plate according to claim 1, wherein at least one kind of said oxide powders is set to 10 μm or less, and said oxide coating layer is obtained by implementing a heat treatment at a temperature depending on the grain size of said powder.

3. (original): The refractory metal plate according to claim 1, wherein a thickness of said oxide coating layer is set to 10 to 300 μm .

4. (original): The refractory metal plate according to claim 1, wherein a surface of said oxide coating layer is porous, and a surface roughness thereof is such that Ra is 20 μm or less and Rmax is 150 μm or less.

5. (cancelled)

6. (original): The refractory metal plate according to claim 1, wherein said oxide coating layer is formed by plasma spraying.

7. (original): The refractory metal plate according to claim 1, wherein said oxide coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent, painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the base material, then applying a melting process at a temperature depending on a grain size of the oxides to be deposited.

8. (original): The refractory metal plate according to claim 1, wherein said oxide coating layer is formed by forming an oxide coating layer by the use of a high temperature resistant adhesive, then applying a heat treatment so as to deposit it.

9.-12. (canceled)

13. (original): A setter used in sintering, comprising the refractory metal plate according to claim 1.

14. (currently amended): A refractory metal plate comprising:

a molybdenum plate having a composition of 99.9% or more purity and having a high temperature deformation resistant characteristic, said plate having at least one surface; with

an oxide coating layer formed by depositing oxide powder of at least one of oxide powders of alumina, silica, zirconia, yttria, titania, magnesia, and calcia to said at least one surface of said plate, ~~wherein said plate is a molybdenum plate having a composition of 99.9% or more purity and having a high temperature deformation resistant characteristic, and~~

wherein a size of a disk-shaped crystal grain contained inside said molybdenum plate is such that a ratio of a longer diameter relative to a shorter diameter of a disk surface is four or less, a diameter of a disk surface of said molybdenum plate crystal grains is 15mm to 150mm, and crystal grains account for 1/5 or more of a thickness in a thickness direction of said molybdenum plate, the exposure of a base material being equal to or less than 1% of a unit area of the oxide coating layer, ~~said metal having a shape of plate and~~

wherein, in surface state of the coated metal plate as is a base plate, and a surface roughness thereof is such that Ra is 20 μm or less and Rmax is 150 μm or less.

15. (original): A setter used in sintering, comprising the refractory metal plate according to claim 14.

16. (original): The refractory metal plate according to claim 14, wherein said oxide coating layer is formed by plasma spraying.

17. (original): The refractory metal plate according to claim 14, wherein said oxide coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent, painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the base material, then applying a melting process at a temperature depending on a grain size of the oxides to be deposited.

18. (original): The refractory metal plate according to claim 14, wherein said oxide coating layer is formed by forming an oxide coating layer by the use of a high temperature resistant adhesive, then applying a heat treatment so as to deposit it.

19.-22. (canceled).

23. (currently amended): A refractory metal plate comprising:

a metal plate having at least one surface;

~~with~~ an oxide coating layer on said at least one surface, said layer being formed by depositing oxide powder of at least one of oxide powders of alumina, silica, zirconia, yttria, titania, magnesia, and calcia to said at least one surface of said plate,

wherein said plate has a composition of 0.1 to 1.0wt% lanthanum or lanthanum oxides with the remainder composed of molybdenum, has a structure extending in a substantially fixed direction, and is small in deformation amount at a high temperature, the exposure of a base material being equal to or less than 1% of a unit area of the oxide coating layer, ~~said-metal having a shape of plate~~ and

~~wherein, in surface state of the~~ coated metal plate as is a base plate, and a surface roughness thereof is such that Ra is 20 μm or less and Rmax is 150 μm or less.

24. (original): The refractory metal plate according to claim 23, wherein said plate has crystal grains exhibiting an interlocking structure in which the structure extends in a fixed direction so as to be recrystallized, and is excellent in processability and high temperature deformation resistance.

25. (original): A setter used in sintering, comprising the refractory metal plate according to claim 23.

26. (original): The refractory metal plate according to claim 23, wherein said oxide coating layer is formed by plasma spraying.

27. (original): The refractory metal plate according to claim 23, wherein said oxide coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent, painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the base material, then applying a melting process at a temperature depending on a grain size of the oxides to be deposited.

28. (original): The refractory metal plate according to claim 23, wherein said oxide coating layer is formed by forming an oxide coating layer by the use of a high temperature resistant adhesive, then applying a heat treatment so as to deposit it.

29.-32. (canceled).

33. (original): A setter which is used in sintering and which comprises the refractory metal plate according to claim 24.

34. (original): The refractory metal plate according to claim 24, wherein said oxide coating layer is formed by plasma spraying.

35. (original): The refractory metal plate according to claim 24, wherein said oxide coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent, painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the base material, then applying a melting process at a temperature depending on a grain size of the oxides to be deposited.

36. (original): The refractory metal plate according to claim 24, wherein said oxide coating layer is formed by forming an oxide coating layer by the use of a high temperature resistant adhesive, then applying a heat treatment so as to deposit it.